REMARKS/ARGUMENTS

Claims 1-43 are pending in the application.

In the Claims:

All claims stand rejected under 35 USC 103(a) as unpatentable over various combinations of prior art references. The present grounds for rejection are new, but these new combinations and the Examiner's organization of his analysis of the new grounds for rejections parallel exactly the combinations and analysis that were made in the preceding Action of July 10, 2006, with the exception that a new secondary reference, US 4,400, 187 to Lane, has been asserted in place of the previous included US 4,665,801 to Kojima. For the reasons given below, the substitution of Lane '187 does not provide the motive or suggestion to combine the references in the manner proposed by the Examiner. In fact it teaches away from the claimed invention.

A. Apparatus Claims 1-14

Claims 1, 2 and 13 stand rejected under 35 U.S.C. 103(a) as unpatentable over Nolan '437 in view of US 4,400, 187 to Lane. Additionally, Claims 3-12 and 14 stand rejected under 35 USC 103(a) as unpatentable over Nolan in view of Lane '187, Moore and the Grainger catalog. Applicants traverse these rejections.

Nolan '437 does not disclose an air outlet at the bottom of its air tank 24. Rather, Nolan '437 teaches the conventional location of its air outlet port 32 at the top of tanks 24. The Examiner acknowledges this (Action Para. 4). He then argues that although Lane '187 Fig. 1 only shows "an outlet port at what appears to be the half-way point of the tank", that "[w]ith the use of the hollow conduit 10 [taught by Lane '187], the air tank could be positioned in such a way that the outlet port . . . [was located] at the lowest point of the tank." Action Para. 4 (emphasis added). Therefore, according to the Examiner, it would have been obvious to modify the Nolan air tank to incorporate the air outlet port and hollow conduit as taught by Lane. Applicants

respectfully disagree with the Examiner's characterization of the teaching or suggestion of Lane '187.

Lane '187 is directed to "a device for preventing circulation of liquid water entrained in compressed air." Lane '187 col. 1 lines 9-11. It emphasizes the adverse effect of such entrained water on the tools and work piece that use the compressed air. Id. col. 1 lines 13-19. As a solution, Lane provides a simple filter device for catching the "droplets of water entrained in the air stream" and absorbing them in material of filter plug 82 of device 10. Id. col. 3 lines 64-67. In fact, the water is not completely removed from the air, but is merely broken up from "droplets" into "vapor" and discharged downstream into the air tool. Id. col. 3 line 58 to col. 6 line 6. Apparently, the filter plug assembly 28 may become saturated and/or plugged, in which case it can be removed and replaced. See Id. col. 4 lines 7-8.

Thus, read as a whole and understood in view of its whole disclosure, Lane '187 in no way teaches, suggests, or motivates the provision of an "air outlet port . . . positioned at a bottom portion of the air tank", as required by independent Claim 1, so as to deliberately blow down accumulated condensate from the air tank into the load, whenever the compressor assembly is in use. Lane '187 does not motivate or suggest an arrangement that might increase the moisture content of compressed air. Rather, it proposes the addition of an accessory device (an absorbent filter) to deal with the moisture that gets into the compressed air anyway. Providing a possible and limited solution for an undesirable condition is not the same as providing motivation or suggestion to combine a number of references in a way that is likely to aggravate that undesirable condition. Rather, Lane' 187 teaches away from the claimed invention, because it is concerned with the negative effect of entrained condensate and would not suggest anything that might increase the moisture content of compressed working air. Therefore, if Lane '187 suggests any modification of Nolan, it suggests the provision of a moisture filter, not the relocation of its air outlet.

In this regard, the teaching of Lane '187 is completely conventional and does not suggest or motivate the claimed invention. Note for example that Fig. 1 of Lane 187

shows what appears to be a conventional low point drain or blowdown valve situated below outlet valve 18 and near the bottom of tank 16. Furthermore, consider that combining the references as proposed by the Examiner, so as to be constantly blowing water from the compressed air tank, may very well create a condition that overloads/saturates Lane's porous absorbent plug 82 with moisture and results in unacceptable (to Lane) levels of downstream water carryover, potential damage to the served air tools, and/or frequent replacement of plug 82 and resultant off-line time for the air compressor assembly. Thus, it is clear that Lane '187 teaches away from the claimed invention.

In contrast, the present invention is intended for use in compressed air systems (like Nolan '437) where no air dryer has been provided (to hold down cost and complexity) and where the loads can tolerate the entrainment of some condensate in the compressed air provided. *See* Specification Paras. 6 and 9. By locating its outlet port so as to deliberately entrain condensate in the compressed air sent to loads, the present invention is able to advantageously keep the tank interior dryer, but at the cost of making its compressed air unsuitable for some applications where dry air is required.

Since applicants believe they have demonstrated the novelty of independent claim 1 over the cited Nolan in view of Lane '187, they believe it is not necessary to separately address the rejection of dependent claims 3-12 and 14 over Nolan in view of Lane, Moore, and the Grainger catalog (Action at Para. 7).

B. Apparatus Claims 15-27

Claims 15 and 16 stand rejected under 35 U.S.C. 103(a) as unpatentable over Westphal '072 in view of Lane '187. Action at para. 5. Additionally, claims 17-27 stand rejected under 35 USC 103(a) as unpatentable over Westphal in view of Lane '187, Moore '019 and the Grainger catalog. Action at para. 9. Applicants traverse these rejections with the same arguments made in section A above.

Previously presented independent claim 15 requires:

> An air compressor assembly for supplying compressed air to a load, the air compressor assembly comprising:
> an air tank for containing air at an elevated pressure, the air tank having an air access port positioned at a bottom portion of the air tank;
> an air compressor for supplying air for storage in the air tank;
> a first tubing connecting the air compressor to a manifold assembly; and
> a second tubing connecting the manifold assembly to the air access port;
> wherein compressed air in the air tank is discharged through the air access port, the second tubing, and the manifold assembly when supplying compressed air to the load.

Westphal '072 does not disclose an air outlet port at the bottom portion of its air tank 12. Rather, Westphal '072 teaches the conventional location of its air outlet port in a top portion of tank 12. The Examiner acknowledges this (Action Para. 6). The Examiner, however, then argues that although Lane '187 Fig. 1 only shows "an outlet port at what appears to be the half-way point of the tank", that "[w]ith the use of the hollow conduit 10 [taught by Lane '187], the air tank could be positioned in such a way that the outlet port . . . [was located] at the lowest point of the tank." Action Para. 6 (emphasis added). Therefore, according to the Examiner, it would have been obvious to modify the Nolan air tank to incorporate the air outlet port and hollow conduit as taught by Lane. Applicants respectfully disagree with the Examiner's characterization of the teaching or suggestion of Lane '187.

Lane '187 is directed to "a device for preventing circulation of liquid water entrained in compressed air." Lane '187 col. 1 lines 9-11. It emphasizes the adverse effect of such entrained water on the tools and work piece that use the compressed air. Id. col. 1 lines 13-19. As a solution, Lane provides a simple filter device for catching the "droplets of water entrained in the air stream" and absorbing them in material of filter plug 82 of device 10. Id. col. 3 lines 64-67. In fact, the water is not completely removed from the air, but is merely broken up from "droplets" into "vapor" and discharged downstream into the air tool. Id. col. 3 line 58 to col. 6 line 6. Apparently,

the filter plug assembly 28 may become saturated and/or plugged, in which case it can be removed and replaced. See Id. col. 4 lines 7-8.

Thus, read as a whole and understood in view of its whole disclosure, Lane '187 in no way teaches, suggests, or motivates the provision of an "air outlet port . . . positioned at a bottom portion of the air tank", as required by independent Claim 1, so as to deliberately blow down accumulated condensate from the air tank into the load, whenever the compressor assembly is in use. Lane '187 does not motivate or suggest an arrangement that might increase the moisture content of compressed air. Rather, it proposes the addition of an accessory device (an absorbent filter) to deal with the moisture that unavoidably gets into the compressed air. Providing a possible and limited solution for an undesirable condition is not the same as providing motivation or suggestion to combine a number of references in a way that is likely to aggravate that undesirable condition. Rather, Lane' 187 teaches away from the claimed invention, because it is concerned with the negative effect of entrained condensate and would not suggest anything that might increase the moisture content of compressed working air. Therefore, if Lane '187 suggests any modification of Westphal, it suggests the provision of a moisture filter, not the relocation of its air outlet.

In this regard, the teaching of Lane '187 is completely conventional and does not suggest or motivate the claimed invention. Note for example that Fig. 1 of Lane 187 shows what appears to be a conventional low point drain or blowdown valve situated below outlet valve 18 and near the bottom of tank 16. Furthermore, consider that combining the references as proposed by the Examiner, so as to be constantly blowing water from the compressed air tank, may very well create a condition that overloads/saturates Lane's porous absorbent plug 82 with moisture and results in unacceptable (to Lane) levels of downstream water carryover, potential damage to the served air tools, and/or frequent replacement of plug 82 and resultant off-line time for the air compressor assembly. Thus, it is clear that Lane '187 teaches away from the claimed invention.

In contrast, the present invention is intended for use in compressed air systems (like Nolan '437) where no air dryer has been provided (to hold down cost and complexity) and where the loads can tolerate the entrainment of some condensate in the compressed air provided. *See* Specification Paras. 6 and 9. By locating its outlet port so as to deliberately entrain condensate in the compressed air sent to loads, the present invention is advantageously able to keep the tank interior dryer, but at the cost of making its compressed air unsuitable for some applications where dry air is required.

Since applicants believe they have demonstrated the novelty of independent claim 15 over the cited Westphal in view of Lane, they believe it is not necessary to separately address the rejection of dependent claims 16 over the same or the rejection of dependent claims 17-27 over Westphal in view of Lane, plus Moore, and plus the Grainger catalog.

C. Apparatus Claims 28-40

Claims 28, 29, and 39 stand rejected under 35 U.S.C. 103(a) as unpatentable over Westphal '072 in view of Strubel '131. Action at Para. 11. Additionally, claims 30-38 stand rejected under 35 USC 103(a) as unpatentable over Westphal in view of Strubel '131 and further in view of Moore '019. Action at Para. 13. Applicants traverse these rejections for all the reasons articulated in their previous replies dated January 10, 2007 (at pages 12-14) and May 2, 2006 (at pages 10-11), and which arguments are herein incorporated by reference..

Although the Examiner again states that he has not found the Applicants' arguments to be persuasive, the Applicants maintain that the Examiner is obliged to identify with particularity the source of the suggestion or motive to combine the references in the proposed manner. MPEP 706.02(j). The Examiner has not done so. The desirability of removing liquid condensate from Westphal and the suggestion or motive to do so with the inner conduit from Strubel comes only from the hindsight knowledge of the problem identified and the solution offered in the subject application. Therefore, the Applicants maintain that the Examiner has not satisfied his obligation to make a prima facie case for the obviousness of the proposed combination.

Since the Applicants believe they have demonstrated the novelty of independent claim 28 over the cited Westphal in view of Strubel, they believe it is not necessary to separately address the rejection of dependent claims 29 and 39 over the same, or the separate rejection of dependent claims 30-38 and 40 over Westphal in view of Strubel and in further view of Moore.

D. Method Claims 41-43

Method claims 41 -43 stand rejected under 35 U.S.C. 103(a) as unpatentable over Nolan '437 in view of Lane '187. Applicants traverse that rejection for all the reasons *mutatis mutandis* articulated above regarding apparatus claims 1-14, which were rejected on the same grounds and in the same portion of the Action. The Applicants reasons being that neither Nolan '437 nor Lane '187 teach "supplying one of an air outlet port, an air access port, and an open end of a hollow conduit positioned at a bottom portion of the air tank" and "discharging condensate within the air tank into compressed air being released from the air tank during air usage", nor does either cited reference suggest a combination of elements or a modification of Nolan '437 that would do so. *See* Section A above.

For all the reasons above, Applicants respectfully request reconsideration of the claims.

Respectfully submitted

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